

Surgically Implanted Plate Ideal For Challenging Fractures

University of North Carolina Chapel Hill



Metaphyseal fractures are breaks that occur at the end of a bone, near the junction between the tubular shaft and the blocky end of the bone. Standard methods of repair, including casts, external fixators, pins and plates, may result in less-than-perfect outcomes, such as shortened bones, infection or chronic pain, irritation and stiffness. Conventional plates can be effective, but a large incision is required that usually results in a significant scar. The plates are large and have irregular surfaces that can irritate tendons, muscle tissue and skin, causing discomfort and restricted motion.

To remedy these problems, Laurence E. Dahners, M.D., professor of orthopaedic surgery at University of North Carolina at Chapel Hill, invented the percutaneous intrafocal plate system in 2000.

“ The device is a simple, safe and effective method for treating metaphyseal fractures that is more comfortable and does not result in major scarring.

The plate system is inserted through a very small incision above the fracture. The body element of the plate is actually inserted into the tubular hollow of the bone, so the plate is seated securely in the fracture site. Because the plate is slender and has a smooth surface, it does not irritate soft tissue. The system also enables screw placement at predetermined anatomic angles so bone fragments can be attached to the plate for maximum stability.

The University of North Carolina has licensed this technology to Minnesota-based Tornier U.S., a leading designer of medical devices. Tornier U.S. is actively marketing the device as the CoverLoc Volar Plate™.

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